WEED ALERT

Brachypodium sylvaticum (slender false brome)

Jim Johnson, Streamkeeper, San Francisquito Watershed Council

The first California collection of *Brachypodium sylvaticum* (Huds.) Beauv. (slender false brome or false brome) was identified in early December, 2003, by Dr. Fred Hrusa, senior plant systematist for CDFA Plant Pest Diagnostic Center, from specimens sent to him through the San Mateo County Department of Agriculture. The plants were found growing in the San Francisquito Creek watershed located in San Mateo and Santa Clara Counties. He has given it a Q rating, a provisional status, pending evaluation of the plant's invasive potential by a state committee that will be established for the species.

Photo courtesy John Beall

***B. sylvaticum*, foreground, along Highway 84 in the Santa Cruz Mountains.**

It is, however, currently widespread in Oregon, particularly surrounding the Willamette Valley, and expanding rapidly. Federal and state agencies, companies and non-profits there have established a False Brome Working Group in Oregon to deal with the infestation which covers some 10,000 acres in the state. They have decided eradication is impossible and that containment is the only option. We might expect similar invasiveness in parts of California and should lose no time in mapping the extent of the current invasion, beginning control and, in particular, familiarizing those concerned about wildland weeds in California with the plant so they can begin to look for it. The Oregon False Brome Working Group maintains a good web-site on the plant at <*appliedeco.org/FBWG.html*>, as does The Nature Conservancy at <*tncweeds.ucdavis.edu/alert/alrtbrac.html*>.

Brachpodium sylvaticum is a very invasive, perennial, non-rhizomatous bunchgrass native to Eurasia and North Africa. It thrives in a broad range of conditions, from fairly deep shade to full sun, from dry upland prarie to riparian corridor, from near sea-level to 3500 feet. From my experience the plant does not go dormant, and under the right conditions produces seed throughout the year. It recovers quickly after fire, is not particularly palatable to wildlife or stock and the clumps coalesce to form a dense groundcover shading out low growing plants and preventing seed germination.

It is, moreover, a handsome plant, likely introduced in Oregon through the horticultural trade. Indeed, when I first discovered it several years ago, I had hoped it was native so we could use it in our native revegetation projects. As time went by and no one was able to identify it (being new to California, it is not listed in state floras), we began to grow suspicious. Nevertheless, succumbing to its charm, two years ago I planted it in a revegetation site isolated from the wildlands in a creekside urban park where I could keep an eye on it. It has formed a dense cover 12-18 inches high where it was planted and the patch has quadrupled in size through seed dispersal. We will now gain our first experience in false brome control by eliminating this infestation.

Mandy Tu of TNC's Oregon Field Office says, "Get it now... before it's too late!"

The grass is easily identified once one is familiar with it. The pictures on the web and accompanying this article should provide a strong visual cue to the observer. The following description is my own from collections of this infestation. Systematists with a broader range of specimens will have slightly different details. Most distinctive in identifying false brome is the single row of ciliate-pilose hairs fringing the leaf blade and similar hairs covering the leaf sheath and accentuated at the collar.

The leaf sheath is open to the base. Leaf surfaces are sparsely covered by similar hairs (very sparse on the abaxial-dorsal-surface in specimens from this infestation recently collected). The leaf blades are a distictive bright green, flat, about

Photo courtesy John Beall

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***B. sylvaticum* among redwood trees.**

10-12 mm wide and 20 cm long. They are lax, curving downward from the center of the plant. The thin flowering culms (about 4 dm long) similarly nod. The inflorescence consists of six or more sessile (or very short stalked) spikelets, each about 1 cm apart on the drooping rachis. The awnless glumes subtending the spikelet are small and persistant on the rachis, which does not disarticulate. The spikelets contain 8 or more florets on short pedicels. The lemmas are longer than the glumes and bear awns (10-12 mm) longer than themselves. But I believe the flat, nodding leaf blade, the leaf and sheath hairs and the open sheath are diagnostic, according to what others have written.

Brachypodium sylvaticyum has no rhizomes or stolons. Each plant increases its size by bunching at the base until individual plants coalesce to form a solid mass. The roots are surprisingly weak for a deep-rooted bunch grass, so the plants are easy to pull with the right soil moisture, particularly if the plants are lifted first with a spading fork. Care must be exercized so that all basal growth points are eliminated. But this is tedious. Glyphosate is probably a better option for control of pure stands. Seeds are said to be short-lived.

The plant is will established around Schilling Lake in Portola Valley in San Mateo County on the peninsula south of San Francisco. It must have been there for some time. Though we have not fully mapped the extent of the infestation, it stretches at least 1 mile (the area of most dense cover is about 1/2 mile long) along the steep canyon of Dennis Martin Creek from near the base of the Santa Cruz Mountains to the crest, perhaps. Its spread laterally from the creek is unknown.This is mostly redwood forest. It does not seem to grow in the densest shade of the redwoods, but does well where there are sun breaks and in the mixed evergreen forest nearby. In those few spots where there is full sun, it grows luxuriantly.

The center of the infestation is on Midpeninsula Regional Open Space District (MROSD) land in Thornewood Open Space Preserve and their resource manager is very interested in controlling the infestation. It also occurs on private property along Grandview Terrace and Espinoza Drive at Highway 84 near Skylonda. Our San Mateo County Weed Management Area (WMA), the county agriculture commission, and the local CNPS chapter are very concerned also. Regardless of state designation, this is definitely a plant to become familiar with, identify and eradicate where possible in California. It has the potential to become widspread in the coastal mountains with serious ecological implications. As Mandy Tu of The Nature Conservancy's Oregon Field Office said when hearing of our collection, "Get it now...before it's too late!"

Follow up note: On January 13th, a group of representatives from MROSD, the California Native Plant Society, the San Francisquito Watershed Council, California State Parks, and other members of the San Mateo County WMA visited the *B. sylvaticum* infestation to appraise the situation and begin making management decisions. They estimated the extent of the infestation at approximately 30 acres. Approximately half of this area is on MROSD land, and half is on adjacent or nearby private land. Much of the area is also heavily populated with native, perennial grasses, which will pose additional management challenges. The group will coordinate through the Weed Management Area to determine the best methods for control. They will likely start by containing the infestation, then work on eradication.